

REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Office Action dated April 19, 2004, is respectfully requested.

Claims 1-33 have been rejected. Claim 10 has been canceled. Claim 34 has been added. As such, claims 1-9 and 11-34 are currently pending.

Claim 1 has been amended to recite that channels are dynamically assigned. Support for this amendment may be found, for example, on page 13 of the Specification, at lines 12 –14. Renumbered claims 21-33 have been amended to provide proper dependencies. Renumbered claim 26 has further been amended for clarity, and to recite that channels are dynamically assigned. Support for this amendment may be found, for example, on page 13 of the Specification, at lines 12 –14. Claims 15, 20, and 21 have been amended in a similar manner as claim 1. Claim 9 has been amended to include the limitations of claims 10 and 11. Claims 11-13 have been amended to provide proper dependencies in light of the cancellation of claim 10. Claim 11 has further been amended to recite that a channel manager that actively allocates framing service engine ones of a plurality of point to point links dynamically allocates the framing service engines. Support for this amendment may be found in the Specification, *e.g.*, from page 12 at line 1 to page 13 at line 14.

New claim 34 recites that a framing engine is arranged to frame data packets from higher layer protocols, and further that a deframing engine is arranged to deframe data streams from lower layer protocols. Support for this new claim may be found in the Specification, as for example on page 9 at lines 12-22.

Objections to the Drawings

The Examiner has objected to Figs. 1 and 2 for not being designated by a legend such as “—Prior Art—”. In response to the Examiner’s objections, corrected drawings which show a

“—Prior Art—“ legend in Figs. 1 and 2 are being submitted with the filing of this amendment. Both red-lined versions of Figs. 1 and 2 and corrected versions of Figs. 1 and 2 are being submitted.

Objections to the Specification

The Examiner has objected to the Specification because of improper placement of the title in the abstract of the disclosure. As such, the Applicants have removed the title from the abstract in a sincere effort to overcome the Examiner's objections.

Objections to the Claims

The Examiner has indicated that claims which were originally filed as claims 20-32 were misnumbered. As such, misnumbered claims 20-32 have been renumbered as claims 21-33, respectively. In addition, the dependencies of the renumbered claims have been corrected to maintain consistency from the renumbered claims.

Rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103

Claims 1, 2, 9, 10, 14-16, 20-22, 26, and 27 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Weitz (U.S. Patent No. 6,445,682). Claims 3-8, 11-13, 17-19, 23-25, and 28-33 have been rejected under 35 U.S.C. § 103(a) as being obvious over Weitz (U.S. Patent No. 6,445,682) in view of Beaver et al. (U.S. Patent No. 5,699,356).

1. Claim 1 and its dependents

Independent claim 1 recites a packet forwarding system which includes an interface system having a plurality of channels, a plurality of framing service engines, and a channel

manager. The channel manager dynamically assigns channels to ones of the framing service engines.

The Examiner has argued that Weitz teaches of the packet forwarding system of claim 1. The Applicants respectfully submit that although Weitz appears to teach of a packet forwarding system, Weitz does not appear to teach of a channel manager for assigning channels to framing service engines. The Examiner has indicated, on page 3 of the Office Action dated April 19, 2004, that the host processor/system resource of Weitz is the same as a channel manager. However, **there is no teaching in Weitz that a host processor/system resource assigns channels to framing service engines.** In fact, Weitz does not appear to any assignment of channels. Providing routing to multiple buffers/framers as taught by Weitz does not teach of assigning channels to framing service engines. It is submitted that providing routing teaches of sending data to multiple buffers/framers, but does not imply the assignment of channels.

Further, as amended, claim 1 recites a channel manager that dynamically assigns channels. The use of dynamic channel assignments may allow data streams to receive preferential treatment over other data streams (Specification, on page 13 at lines 12-14). Weitz does not appear to teach of any dynamic assignment of channels. In teaching of providing routing to buffers/framers (Weitz, column 2 at lines 39-43), there is no indication of dynamically assigning channels, or even of assigning channels. Though Weitz does teach of mapping, the mapping taught by Weitz is not a dynamic assignment of channels (Weitz teaches of a framer that maps data to slots of a bus at lines 3-13 of column 8), and is not performed by a channel manager to dynamically assign channels to framing service engines. Therefore, claim 1 is believed to be allowable over Weitz for at least these reasons.

Claims 2-8 each depend either directly or indirectly from independent claim 1 and are, therefore, each believed to be allowable over claim 1 for at least the reasons set forth above with respect to claim 1. Each of these dependent claims recite additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the art of record. By way of example, claim 8 requires that an interface system comprises a plurality

of network interfaces terminating a plurality of point to point links. The Examiner has cited Weitz as teaching that cards under the control of processor/system resources may include points of termination (Weitz, column 9 at lines 2-5). However, there is no teaching of or suggestion in Weitz that the points of termination are associated with point to point links. Weitz does not appear to make any mention of point to point links, and Beever et al. does not appear to overcome the deficiencies of Weitz. Therefore, claim 8 is believed to be allowable over the art of record for at least this additional reason.

2. *Claim 26 and its dependents*

Claim 26, as amended, recites a packet forwarding system which includes means for receiving packets having a plurality of channels, a plurality of means for framing, and means for dynamically assigning channels to ones of the means for framing. As discussed above with respect to claim 1, Weitz does not appear to teach of dynamically assigning channels or, more generally, assigning channels to means for framing. As such, claim 26 and its dependents are each believed to be allowable over the art of record for at least these reasons.

3. *Claims 15, 20, and 21 and their respective dependents*

Claims 15, 20, and 21 each recite the dynamic assignment of channels to framing service engines. As previously discussed, Weitz does not appear to teach of assigning channels to framing service engines. Providing routing to multiple buffer/framers as taught by Weitz (*e.g.*, at lines 39-43 of column 2), does not imply the assignment of channels or, more specifically, the dynamic assignment of channels. Therefore, claims 15, 20, and 21 are each believed to be allowable over Weitz for at least this reason.

Claims 16-19 each depend from independent claim 15, and claims 22-25 each depend from independent claim 21. Each of these dependent claims recites limitations which, when

considered in light of the limitations of their respective base claims, are believed to further distinguish the claimed invention over the art of record.

4. *Claim 9 and its dependents*

Amended claim 9 recites a packet processing system which includes an interface system and a framing system. The interface system terminates a plurality of point to point links, and the framing system supports a plurality of interfaces of the interface system in terminating the point to point links. The framing system includes a plurality of framing service engines and a channel manager that is arranged to actively allocate framing service engine ones of a plurality of point to point links requiring framing services.

In the Office Action dated April 19, 2004, the Examiner has argued that Weitz teaches of an interface system which terminates a plurality of point to point links. It is respectfully submitted that while Weitz appears to teach of cards which provide points of termination for a plurality of telephones, etc. (Weitz, from column 8 at line 59 to column 13 at line 8), Weitz does not appear to teach of an interface system which terminates a plurality of point to point links.

Further, claim 9 recites a channel manager that is arranged to actively allocate framing service engine ones of point to point links. There is no teaching of, or reasonable suggestion of, a channel manager that actively allocates framing service engine ones of point to point links in any combination of the art of record. It is noted that this limitation was originally presented in claim 11, which the Examiner rejected over Weitz in view of Beever et al. The Applicants respectfully submit that neither Weitz nor Beever et al., alone or in combination, teaches of the active allocation of framing service engines. In addition, claim 9 recites that a plurality of point to point links includes framing service engine ones. In the passage of Weitz that has been cited by the Examiner as teaching of points of termination, there is no teaching that points of termination include framing service engines. Therefore, claim 9 and its dependents are believed to be allowable for at least these reasons.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8696.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peggy A. Su". The signature is fluid and cursive, with the first name "Peggy" being more prominent.

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